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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/972,876

10/10/2001

Jong Hyun Woo

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11/04/2003

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EXAMINER

SHANKAR, VIJAY

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 11/04/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,876

Applicant(s)

WOO, JONG HYUN

Examiner

VIJAY SHANKAR

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 2 is objected to because of the following informalities: Claim 2, line 3; term "brightenss" should be "brightness ". Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Mitchell et al (5,272,327).

Regarding Claim 1, Mitchell et al teaches an apparatus for reducing power consumption of a LCD(Liquid Crystal Display; 16 in fig.1) backlight lamp (10 in fig.4) , comprising: a power unit (22 in fig.4) for supplying power (fig.4; col.3, lines 22-40) ; a control unit (24 in fig.4; col.3, lines 22-40) being supplied power from the power unit and outputting a brightness control information signal having a plurality of discrete

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incremental level values corresponding to discrete brightness levels (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53) ; an inverter unit receiving the brightness control information signal from the control unit and outputting driving power of a corresponding level in accordance therewith (fig.4; col.5, line 52- col.6, line 65), for driving a backlight lamp by levels (col.7, lines 13-65); and a backlight lamp receiving the power from the inverter unit (fig.4; col.7, line 13-65) .

Regarding Claims 2-3, Mitchell et al teaches the apparatus further comprising; a memory unit storing a control information for adjusting a brightness of a LCD screen and a key input unit for adjusting a brightness of a LCD screen (col.2, lines 37- 48).

Regarding Claim 4, Mitchell et al teaches the apparatus wherein the control unit includes: a keyboard controller discriminating a key press state by a user and outputting a brightness adjustment key input signal; a microprocessor receiving the brightness adjustment key input signal and selecting a kind of brightness adjustment information and brightness ROM table, and outputting the brightness control information; a brightness adjustment information outputting unit outputting a brightness adjustment information signal to the inverter unit according to the brightness control information inputted from the microprocessor levels (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53).

Regarding Claim 5, Mitchell et al teaches the apparatus wherein the microprocessor controls the brightness adjustment information signal linearly or nonlinearly so as to be similar to a brightness increase curve by composing the brightness ROM table according to the luminescent characteristics of the backlight lamp levels (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53).

Regarding Claim 6, Mitchell et al teaches the apparatus , wherein the brightness adjustment information outputting unit outputs a digital brightness adjustment information signal converted into information required for the brightness adjustment to the inverter unit levels (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53).

Regarding Claim 7, Mitchell et al teaches the apparatus wherein the digital brightness adjustment information signal uses a voltage level of a PWM duty cycle signal (fig.4; col.5, line 29-51; col.7, line 13- col.8, line 50).

Regarding Claim 8, Mitchell et al teaches the apparatus wherein the memory unit includes a memory unit storing brightness information of a last brightness level inputted from the control unit and an incremental brightness variation value setting unit for outputting a preset brightness value by incremental level to the control unit (fig.4; col. 6, line 3-39; col.7, lines 13-53).

Regarding Claim 9, Mitchell et al teaches the apparatus wherein the

variation value setting unit sets a brightness variation quantity by incremental level or a variation time by incremental level according to an input by a user levels (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53).

Regarding Claim 10, Mitchell et al teaches the apparatus wherein the power unit uses a power adapter or a battery as a power source and is constructed with a power discrimination unit for discriminating between the power sources (fig.4; col. 4, line 12- col.5, line 28).

Regarding Claim 11, Mitchell et al teaches method for saving power of a LCD (16 in fig.1) backlight lamp (10 in fig.40, comprising: outputting a brightness control signal to an inverter corresponding to a brightness information value (fig.4; col.3, line 22-60; col.5, line 52- col.6, line 38; col.7, lines 13-53), wherein the brightness information value gradually increases over a certain time period in consideration of luminescent characteristics of a backlight lamp; and outputting a constant brightness control signal corresponding to the brightness information value after the gradually increased brightness information value reaches a preset value (fig.4; col.5, line 52- col.6, line 65; col.7, lines 13-53).

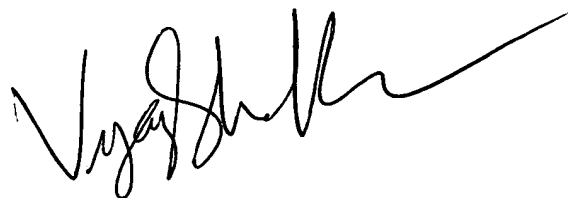
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Saito and Meldrum et al both teach controlling the brightness level of a lamp in a backlight LCD display .

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIJAY SHANKAR whose telephone number is 703-305-4763. The examiner can normally be reached on M-F 7:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BIPIN SHALWALA can be reached on 703-305-4938. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

A handwritten signature in black ink, appearing to read 'Vijay Shankar', with a long horizontal flourish extending to the right.

VIJAY SHANKAR
Primary Examiner
Art Unit 2673

VS